| | CONTINUITY | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Mathematics CROSSWALK: Grade Level Expectations for Grades 3-8 to 2007 MLR** | Is it in the 2007 standards? | Is the CONCEPT/IDEA the same? | Is the WORDING the same? | WHERE is it found? (Standard, PI, Descriptor) | Is it at the same grade span or grade level? | At what level of Bloom's taxonomy is the COGNITIVE DEMAND in the GLEs? | At what level of Bloom's taxonomy is the COGNITIVE DEMAND in the 2007 MLR? | | |
| **In the coding, PK-2 is represented by (2), 9-D by (9). If no indicator is given the statement is in the standard. If no descriptor(s) is specified then the entire indicator is matched to the expectation. Special attention should be paid to implications of understand. *indicate earlier indicators prerequisite and linked.** | | | | | | | | | |
| **CLUSTER 1. NUMBERS and OPERATION** | | | | | | | | | |
| **Content Standard A: Number and Number Sense: Students will understand and demonstrate a sense of what numbers mean and how they are used. Students will be able to:** | | | | | | | | | |
| **Grade 3** | | | | | | | | | |
| M1A1.3 Read, write, model, and compare whole numbers using <, >, and = and order numbers up to 9999 and classify numbers as odd or even for numbers up to 9999. | yes | yes | N, 10000 | A1(3) | yes | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A2.3 Read, write, model and compare simple fractions with denominators 2,3 and 4 | yes | partial, 2007 goes to tenths | no | A3(3) | yes | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A3.3 Demonstrate understanding of the meaning of decimals through hundredths (in money contexts only). | yes | yes | no | A5(4)a | no | 2,3 | 2,3,4 | | |
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| **Grade 4** | | | | | | | | | |
| M1A1.4 Read, compare, order, classify, and explain whole numbers up to one million. | yes | yes | no, 2007 uses understand | A4(4), A4(5) | no | 2,3 | 2,3,4 | | |
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| | | | | | | | | | |
| M1A2.4 Read, compare, order, classify, and explain simple fractions through tenths. | yes | yes | no, 2007 uses understand | A3(3) | no | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A3.4 Demonstrate knowledge of the meaning of decimals and integers and an understanding of how they may be used. | yes | yes | no, 2007 uses understand, limits to 0.001, splits decimals and itnegers | A5(4)a, A5(5)a, A6(5) | no | 2 | 2,3,4 | | |
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| Grade 5 | | | | | | | | | |
| M1A1.5 Read, compare, order, use, and represent simple fractions (halves, fourths, fifths, and tenths with all numerators) and decimals to hundredths. | yes | yes | no, "understand" and split | A4(3), A5(4)ad | no | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A3.5 Use divisibility rules for 2, 5 and 10. | partial | partial, rules not specified | no | A2(4)ab | no | 3 | 3 | | |
| | | | | | | | | | |
| Grade 6 | | | | | | | | | |
| M1A1.6 Read, compare, order, use and represent fractions, (halves, thirds, fourths, fifths, sixths, eighths and tenths with all numerators); and compare, order, use and represent decimals to thousandths and convert between decimals and percentages. | yes | yes | no, split across indicators | A4(3), A5(5)ad, A4(6)b | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| M1A3.6 Recognize and apply concepts of prime and composite numbers and use divisibility rules for 2, 3, 4, 5, 6, 9 and 10; and recognize and find factors and multiples of natural numbers. | partial | partial, divisibility rules not explicit | no | A1(6), A2(4) | no | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 7 | | | | | | | | | |
| M1A1.7 Read, compare, order, use, and represent fractions, decimals, and percents and convert among different numeral forms (limited to terminating decimals for decimal to fraction conversion) and apply concepts of integers, absolute value and positive exponents. | partial | partial, no emphasis on conversion, no explicit absolute value | no | A2(6), A4(6)b, A1(7)b, A2(7)a, A4(7)a | no | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A3.7 Apply concepts of ratios in practical or other mathematical situations. | yes | yes | no | A4(6)a, A3(7)a | no | 3 | 2,3,4 | | |
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| Grade 8 | | | | | | | | | |
| M1A1.8 Use numbers in a variety of equivalent and interchangeable forms (e.g., integer, fraction, decimal, percent, exponential, and scientific notation) in problem-solving. | yes | yes | no | A1(7), A2(7)a, A4(7)a, A1(8) | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M1A3.8 Apply concepts of ratios, proportions, percents, and number theory (e.g. primes, factors, and multiples) in practical and other mathematical situations. | yes | yes | No, split among many | A1(6), A4(6), A3(7), A4(7), | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| **Content Standard B: Computation: Students will understand and demonstrate computation skills (no calculator use for straignt computation and numers used in this section should match those listed for Standard A). Students will be able to do:** | | | | | | | | | |

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| Grade 3 | | | | | | | | | |
| M1B1.3 Solve single and multi-step, real-life problems using addition and subtraction with whole numbers with no number greater than **9999.** | partiial | Partial no multistep specified in 07 | no | A2(3) | yes | 3 | 3 | | |
| | | | | | | | | | |
| M1B3.3 Develop proficiency with the facts and algorithms of addition and subtraction on whole numbers using mental math and a variety of materials, strategies, and technologies with no number greater than **9999.** | partial | P, no tech, no variety specified in 07 | N | A2(3) | yes | 3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M1B1.4 Solve multi-step, real-life problems using the four operations with whole numbers. | yes | yes | N | A3(4), A2(5), A3(5) | no | 3 | 2,3 | | |
| | | | | | | | | | |
| M1B2.4 Solve real-life problems involving addition and subtraction of simple fractions. | yes | yes | no, problem-solving in "understand" | A4(4)a | yes | 3 | 3 | | |
| | | | | | | | | | |
| M1B3.4 Develop proficiency with the facts and algorithms of the four operations on whole numbers using mental math and a variety of materials, strategies, and technologies. | partial | no, methods not specified | no | A2(3), A3(3), A3(4) | no | 3 | 3 | | |
| | | | | | | | | | |
| Grade 5 | | | | | | | | | |
| M1B1.5 Compute and model all four operations on whole numbers (1-digit divisor, 3-digit dividend) and addition and subtraction with simple fractions with common denominators and decimals to hundredths and do straight computation with these numbers and operations. | yes | yes | no, split in 2007 | A2(3),A3(4), A4(4)a, A5(4)a | no | 3 | 3,4 | | |
| | | | | | | | | | |
| M1B2.5 Create, solve, and justify the solution for multi-step, real-life problems involving all four operations on whole numbers (1-digit divisor, 3-digit dividend) and addition and subtraction with simple fractions with common denominators and decimals to hundredths. | yes | yes | no, problem-solving in "understand", wholes and rationals split | A2(3),A3(4), A4(4)a, A5(4)a, A3(5), | no | 3,4 | 3,4 | | |
| | | | | | | | | | |
| Grade 6 | | | | | | | | | |
| M1B1.6 Compute and model all four operations with whole numbers, common fractions and decimals to thousandths, and do straight computation with these numbers and operations. Division limited to 2-digit whole number divisors and 3-digit dividends. | yes | yes | no, split among indicators, problem solving in "understand" | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6) | no | 3 | 2,3,4 | | |

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| M1B2.6 Create, solve, and justify the solution for multi-step, real-life problems with whole numbers, common fractions and decimals to thousandths, with division limited to 2-digit whole number divisors and 3-digit dividends. | yes | no, 2007 does not separate out mixed numbers | no, split among indicators, problem solving in "understand" and in standard | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6) | no | 3,4 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 7 | | | | | | | | | |
| M1B1.7 Compute and model all four operations with whole numbers, fractions (including mixed numerals), decimals, and percents applying order of operations and do straight computation with these numbers and operations. | yes | yes | no, split among indicators, problem solving in "understand" and in standard | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6) , A4(7), | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M1B2.7 Create, solve, and justify the solution for multi-step, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents. | yes | yes | no, split among indicators, problem solving in "understand" and in standard | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6), A4(7) | no | 3,4 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 8 | | | | | | | | | |
| M1B1.8 Compute and model all four operations with whole numbers, fractions, decimals, sets of numbers, and percents, applying the proper order of operations. | yes | yes | no, split among indicators, problem solving in "understand" and in standard | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6), A4(7) | no | 3 | 2,3,4 | | |
| Note: Includes positive and negative numbers. | | | | | | | | | |
| | | | | | | | | | |
| M1B2.8 Create, solve, and justify the solution for multi-step, real-life problems including those with ratio and proportion. | yes | yes | no, split among indicators, problem solving in "understand" and in standard | A2(3), A5(2), A4(5), A5(5)bc, A3(6), A5(6), A3(7), A4(7) | no | 3,4 | 2,3,4 | | |

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| Content Standard I: Discrete Mathematics: Students will understand and apply concepts in discrete mathematics. Students will be able to: | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M1I1.3 Create and use organized lists and Venn diagrams. | no | | | | | | | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M1I1.4 Create and use an organized lists, tree diagrams, Venn diagrams and networks. | no | | | | | | | | |
| | | | | | | | | | |
| Grades 5 - 8 | | | | | | | | | |
| Content Standard I. Discrete Mathematics: There is considerable overlap with other areas and other aspects are more appropriately assessed locally. No Grade Level Expectations in 5-8. | | | | | | | | | |
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| **CLUSTER 2. SHAPE and SIZE** | | | | | | | | | |
| Content Standard E: Geometry: Students will understand and apply concepts from geometry. | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M2E1.3 Use properties/ attributes (limited to number of sides, number of angles) to identify, describe, and distinguish between triangles and rectangles and lengths of sides to identify squares as special rectangles. | yes | yes | no | C1(2)b, C1(3)a | no | 2 | 2 | | |
| | | | | | | | | | |
| M2E2.3 Identify a line of symmetry for a given shape or answer questions about figures based on lines of symmetry, e.g. “which of the following shapes have one or more lines of symmetry?” | yes | yes | no | C3(4)ab | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M2E1.4 Describe, model, and classify shapes and figures using applicable properties. | yes | yes | no | C1(3)acd, C1(4) | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| M2E2.4 Experiment with shapes and figures to make generalizations regarding congruency, symmetry, and similarity. | partial | partial, no generalization in 2007, no similarity at this level - not until 7 | no | C3(4), c(3)7 | yes | 3,4 | 2,3 | | |
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| M2E3.4 Use transformations such as slides, flips, and rotations. | yes | yes | no | C5(5) | yes | 3 | 2,3 | | |
| | | | | | | | | | |
| Grade 5 | | | | | | | | | |
| M2E1.5 Use properties/ attributes (limited to number of sides, number of angles, and length of sides, and lines of symmetry) to classify polygons and draw 2-dimensional shapes. | partial | partial - no classification by symmetry explicitly stated | no, split across inidicators | C1(4), C3(4) | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| M2E2.5. Plot non-negative values as points on a number line. | yes | yes | no, positive and negative in 2007 | A6(5)a | yes | 2 | 2,3,4 | | |
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| Grade 6 | | | | | | | | | |
| M2E1.6 Use properties/ attributes (limited to number of sides, number of angles, and length of sides, lines of symmetry, parallel sides, perpendicular sides, and angles relative to 90°) to classify polygons; and to compare and classify rectangular prisms, including cubes; and triangular prisms and draw 2-dimensional shapes. | partial | partial, no use of symmetry for classification, no explicit compare | no, plit between inddicators, no specific limit on solid figues | C1(4), C1(5) | no | 2,3,4 | 2,3 | | |
| | | | | | | | | | |
| M2E3.6 Use ordered pairs as coordinates of points in the first quadrant of a coordinate plane. | yes | yes | no, all quadrants in 2007 at once | C4(5)ab | no | 2 | 2,3 | | |
| | | | | | | | | | |
| Grade 7 | | | | | | | | | |
| M2E1.7 Use properties/ attributes limited to number of vertices, number of edges, number of faces, shapes of faces, and types of angles to identify and distinguish among 3 dimensional figures and draw two- dimensional shapes and three-dimensional figures. | yes | yes | no, explicit factors not listed, 2007 includes sketch | C1(4), C1(5), C1(6)bc | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| M2E3.7 Use a coordinate system to define and locate position. | yes | yes | no | C4(5)ab | no | 2 | 2,3 | | |
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| Grade 8 | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| M2E1.8 Compare, classify, and draw two-dimensional shapes and three-dimensional figures. | partial | partial, compare not explicitly stated | no | C1(4), C1(5), C1(6)bc | no | 2,3,4 | 2,3 | | |
| | | | | | | | | | |
| M2E2.8 Apply geometric properties to represent and solve real-life problems involving regular and irregular shapes. | yes | yes | no, 2007 includes "determione relationships" in C2(8) | C1(7), C1(8), C2(8) | no | 2,3 | 2,3,4 | | |
| | | | | | | | | | |
| M2E3.8 Use a coordinate system to define and locate position. | yes | yes | no | C4(5)ab | no | 2 | 2,3 | | |
| Content Standard F: Measurement: Students will understand and demonstrate measurement skills. Students will be able to: | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M2F1.3 Solve and justify solutions to real-life problems involving the measurement of time, length, and temperature including using a ruler to measure length to the nearest inch and whole centimeter. | yes | yes | no, selection of tol combined in 2007 | C2(2)c*, C2(3), B1(3)b | yes | 3,6 | 2,3,4,6 | | |
| *Ruler on grade 3,4 & 5 tests | | | | | | | | | |
| | | | | | | | | | |
| M2F2.3 Select appropriate tools and units to measure length, time, and temperature | yes | yes | no, selection of tol combined in 2007 | C2(3), B1(3)b | yes | 2,3 | 2,3,4, 6 | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M2F1.4 Solve and justify solutions to real-life problems involving the measurement of time, length, area, perimeter, weight, temperature, mass, capacity, and volume. | yes | yes | no | B1(3)b, B1(4)b, B1(5)b; C2(2), C2(3), C2(4), C2(5), C3(5)c | no | 3,6 | 3,6 | | |
| | | | | | | | | | |
| M2F2.4- Select measuring tools and units of measurement that are appropriate for what is being measured. | yes | yes | no | B1(3)a, B1(4)a, B1(5)a; C2(2) | no | 2 | 2 | | |
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| Grade 5 | | | | | | | | | |
| What was here is combined below. | | | | | | | | | |
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| M2F2.5 Solve problems involving direct measures of length, distance, elapsed time, temperature, capacity, mass and weight with measures limited to whole numbers (quarters for lengths) including using a ruler to measure length to the nearest quarter inch and whole centimeter. | yes | partial - precison for ruler and whole numbers not stated, | no | B1(5), C2(3) | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M2F3.5 Find area and perimeter of rectangles with whole numbers (includes formula use) with correct units. | yes | partial, limits to numbers not stated, use of formula not explicit in 2007 | no | C2(3), C2(4) | no | 3 | 2,3,4 | | |
| Formula sheets as appropriate in all grades. | | | | | | | | | |
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| Grade 6 | | | | | | | | | |
| M2F1.6 Perform conversions between inches, feet and yards; seconds, minutes and hours; pounds and ounces; and cups, pints, quarts and gallons. | yes | no, not limited to specifics in 2007 | no | B1(6) | yes | 3 | 3 | | |
| | | | | | | | | | |
| M2F2.6 Solve problems involving direct measures of length, distance, elapsed time, temperature, capacity, mass and weight. | yes | distance not specified, but it is a length | no | B1(5), C2(3) | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M2F3.6 Compute the area and perimeter of triangles and rectangles with whole numbers (formula use), and find the volume of rectangular solids using pictures of blocks or gridded diagram with correct units. | yes | yes, but limit to whole numbers not present | no | C2(5),C3(5)a | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 7 | | | | | | | | | |
| M2F1.7 Perform conversions between pairs within the following groups: inches, feet, yards, and miles; millimeters, centimeters, meters, and kilometers; cups, pints, quarts, and gallons; milliliters and liters; ounces, pounds and tons; grams and kilograms; seconds, minutes, hours, days, weeks, months, and years. | yes | yes, but list not given | no | B1(6) | no | 3 | 3 | | |
| | | | | | | | | | |
| M2F2.7 Solve problems involving unit price, speed and direct measures | yes | yes | no | B1(5), C2(3), B1(8) | no | 3 | 2,3,4 | | |
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|---|---|---|---|---|---|---|---|---|---|
| M2F3.7 Given formulas from which to choose, find areas and perimeters of 2-D shapes (includes circles), and volumes of rectangular solids with rational numbers with correct units. | yes | yes | no | C2(6), C3(5)a,b,c | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 8 | | | | | | | | | |
| M2F1.8 Demonstrate the structure and use of systems of measurements. | partial | emphasis on conversion for structure | no | B1(5), B1(6), B2(8)a | no | 3 | 3,4 | | |
| | | | | | | | | | |
| M2F2.8 Develop and use concepts that can be measured directly, or indirectly (e.g., the concept of rate). | yes | yes | no | B1(8), B2(8)b | yes | 3,5 | 2,3,4 | | |
| | | | | | | | | | |
| M2F3.8 Demonstrate an understanding of length, area, volume, and the corresponding units, square units, and cubic units of measure. | yes | yes | no | C2(3), C2(4), C2(5), C4(9)b | no | 2,3 | 2,3,4 | | |
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| **CLUSTER 3. MATHEMATICAL DECISION MAKING** | | | | | | | | | |
| Content Standard C: Data Analysis and Statistics: Students will understand and apply concepts of data analysis. Students will be able to: | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M3C2.3 Read and interpret displays of data: line plots, tables, tally charts, and bar graphs, identifying least frequent, most frequent (mode*), reading, using and comparing values. | partial | partial - no tally charts in 2007 | no | B2(3), B2(4) | no | 2,3,4 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M3C2.4 Read and interpret displays of data. | yes | yes, but 2007 includes create that is in K | no | B2(3), B2(4) | no | 2, 3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 5 | | | | | | | | | |
| M3C1.5 Organize data to find mode, median and range of a set of values. | yes | yes | no | B3(5) | yes | 3 | 3 | | |
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| Grade 6 | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| M3C1.6 Organize data to find modes, medians, means and ranges for sets of data and displays: Data displays include frequency distributions, tables, line plots, or bar graphs (e.g., given a bar graph, determine the mode, median, range and mean). | yes | yes | no | B2(3)*, B2(4)*, C4(6) | yes | 3 | 3 | | |
| | | | | | | | | | |
| Grade 7 | | | | | | | | | |
| M3C1.7 Organize data and analyze patterns and trends in data using modes, medians, means and ranges for sets of data (emphasis on comparing sets begins). Data displays include lists, tables, frequency distributions, line plots, bar graphs or stem and leaf plots. | yes | no, more displays included in 2007 | no | B4(6)*, B1(7) | yes | 3,4 | 3,4 | | |
| | | | | | | | | | |
| Grade 8 | | | | | | | | | |
| M3C1.8 Organize and analyze data using mean, median, mode, and range. | yes | yes, but quartiles added in 2007 | no | B4(6), B3(8) | no | 3,4 | 3,4 | | |
| Content Standard D: Probability: Students will understand and apply concepts of probability. Students will be able to: | | | | | | | | | |
| **In the following GLEs it is expected that students use area and set models.** | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M3D2.3 Recognize and describe the likelihood of the occurrence of an event or events using “always”, “impossible”, “likely”, “not likely” or “equally likely.” | yes | yes | no | B2(7)a | no | 2,3 | 2,3 | | |
| | | | | | | | | | |
| Grade 4 | | | | | | | | | |
| M3D2.4 Estimate probability from a sample of observed outcomes and simulations. | yes | yes | no | B2(7)b | no | 2,3 | 2,3,4 | | |
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| Grade 5 | | | | | | | | | |
| M3D1.5 Find the probabilities of simple events and represent them as fractions (1/2, 1/3, 2/3, 1/4, 2/4, 3/4 eligible). | yes | yes | no | B2(7)b | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| Grade 6 | | | | | | | | | |
| M3D1.6 Find the probabilities of simple events and represent them as fractions (simplest form not needed). | yes | yes | no | B2(7)b | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M3D4.6 Find the number of arrangements of 3 factors with no more than 4 choices per factor (e.g., tree diagram, organized list, pictures). | no | | | | | | | | |
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| Grade 7 | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| M3D1.7 Find the probability of simple events and express the probability as a fraction or a percentage (percentages limited to multiples of 10% and 25%). | yes | yes | no | B2(7) | yes | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M3D4.7 Apply the idea of permutation in a problem situation with 6 elements or fewer (e.g., how many ways can the four letters in the word “math” be arranged?). | no | | | | | | | | |
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| Grade 8 | | | | | | | | | |
| M3D1.8 Find the probability of simple events and make predictions by applying the theories of probability. | yes | yes | no | B2(7) | no | 3 | 2,3,4 | | |
| | | | | | | | | | |
| M3D4.8 Find all possible combinations and arrangements involving a limited number of variables. | partial | similar (used in a context to solve some problems) | no | B4(8)c | yes | 3 | 3 | | |
| | | | | | | | | | |
| **Content Standard J. Mathematical Reasoning: Due to the difficulty of measuring the Reasoning Indicators independently of other content and the reasoning that is implied in other performance indicators, no indicators from Standard J are included.** | | | | | | | | | |
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| **CLUSTER 4. PATTERNS** | | | | | | | | | |
| **Content Standard G: Patterns, Relations, and Functions: Students will understand that mathematics is the science of patterns, relationships, and functions. Students will be able to:** | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M4G1.3 Determine the next term or missing terms in patterns with numbers or shapes. | yes | yes | no, "missing term" not stated, but in create | D4(3) | yes | 3, 4 | 2,3,4 | | |
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| M4G2.3 Translate real-life situations into addition and subtraction sentences. | yes | yes, but 2007 includes evaluate | no | D1(4) | no | 3 | 2,3,4 | | |
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| Grade 4 | | | | | | | | | |
| M4G1.4. Use the patterns of numbers, geometry, and a variety of graphs to solve a problem. | yes | yes | no | D4(3), D3(4), D3(5) | no, graphs in 5 | 3 | 3,4 | | |
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| M4G2.4 Use variables and open sentences to express relationships. | yes | yes | no | D1(4) | yes | 3 | 3 | | |
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| Grade 5 | | | | | | | | | |

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| M4G1.5 Translate real-life situations into addition, subtraction, multiplication, or division sentences. | yes | yes | no | D1(5) | yes | 3 | 3 | | |
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| M4G3.5 Solve problems involving linear patterns in tables, graphs, words or rules using whole numbers. | yes | yes | no, "solve problems" not explicit, replaced with analyze and represent; not explicitly limited to linear in 2007 | D3(5) | yes | 3 | 3,4 | | |
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| Grade 6 | | | | | | | | | |
| M4G1.6 Translate real-life situations into addition, subtraction, multiplication, and division sentences with whole numbers (mix of operations included). | yes | yes | no, expressions in 2007 and solve with equations include sentences | D1(6)a, D2(6) | yes | 2,3 | 2,3 | | |
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| M4G3.6 Solve problems involving linear patterns in the form of tables, graphs, words, rules and equations using whole numbers, decimals to hundredths and simple fractions. | yes | yes | no, no explicit limit on number type, but should be similar | D3(6)a | yes | 3 | 3,4 | | |
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| Grade 7 | | | | | | | | | |
| M4G1.7 Translate real-life linear situations into equations (limited to one step). | yes | yes | no, no limit on steps, expressions and equations separate, and evaluate in in 2007 | D1(7), D2(7) | yes | 3 | 3,4 | | |
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| M4G3.7 Solve problems involving linear patterns in the form of tables, graphs, words, rules or equations using rational numbers (including signed values). | yes | yes | no | D3(6), D(3)7, D(8)c | no | 3 | 3,4 | | |

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| Grade 8 | | | | | | | | | |
| M4G1.8 Describe and represent relationships with tables, graphs, and equations. | yes | no, formulas and diagrams added in 2007 | no | D3(6), D3(7), D3(8) | no | 3 | 2,3,4 | | |
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| M4G3.8 Use patterns and multiple representations to solve problems. | yes | yes | no, patterns not explicit in 2007, but implicit | D3(6), D3(7), D3(8) | no | 3 | 2,3,4 | | |
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| **Content Standard H: Algebra Concepts: Students will understand and apply algebraic concepts. Students will be able to:** | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M4H2.3 Solve for a missing number or find the replacement for a symbol in addition and subtraction sentences using whole numbers. | yes | yes | no | D2(3) | yes | 3 | 3 | | |
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| Grade 4 | | | | | | | | | |
| M4H1.4 Develop and evaluate simple formulas in problem-solving contexts. | yes | yes | no | D1(4) | yes | 3 | 3 | | |
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| M4H2.4 Find replacements for variables that make simple number sentences true. | yes | yes | no | D2(4) | yes | 3 | 3 | | |
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| Grade 5 | | | | | | | | | |
| M4H1.6 Evaluate formulas with no more than 2 variables using whole numbers. | yes | yes | no, no limit to 2 variables | D1(5) | yes | 3 | 3 | | |
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| M4H6.5 Solve one-step equations using addition, subtraction, or multiplication with a variable. Values for variables are limited to whole numbers. | yes | yes | no, examples given | D2(5) | yes | 3 | 3 | | |
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| Grade 6 | | | | | | | | | |
| M4H1.6 Evaluate formulas with no more than 3 variables using the computation specified in M1B1.6. | yes | yes | no | D1(6) | yes | 3 | 3 | | |
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| M4H6.6 Solve one-step equations using whole numbers with all four operations. | yes | yes | no | D2(5) | no | 3 | 3 | | |
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| Grade 7 | | | | | | | | | |

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| M4H1.7 Evaluate formulas with no more than 3 variables using the computation specified in M1B1.7. | yes | yes | no, signed values included in 2007 | D1(6), D1(7) | no | 3 | 3 | | |
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| M4H4.7 Graph inequality statements on a number line. | yes | yes | no, graph not stated explicitly | D3(8)c | no | 3 | 2,3,4 | | |
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| M4H6.7 Solve two-step equations using integers and positive rational numbers. | yes | yes | no | D2(7)a | yes | 3 | 2,3 | | |
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| Grade 8 | | | | | | | | | |
| M4H1.8 Use concepts of variables and expressions. | yes | yes | no, so broad in M4H1.8 anything could fit here | D1(6), D1(7), D1(8) | no | 3 | 2,3,4 | | |
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| M4H3.8 Analyze tables and graphs to identify properties and relationships in a practical context. | yes | yes | no | D3(6), D(3)7,D4(8) | no | 4 | 2,3,4, | | |
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| M4H4.8 Use graphs to represent two-variable equations. | yes | yes | no | D4(8)C | yes | 3 | 2,3,4 | | |
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| M4H6.8 Find solutions for unknown quantities in linear equations and in simple equations and inequalities. | yes | yes | no, nonlinear not until 9-D level | D2(7)a, D2(8), D3(8), D(2)9 | no | 3 | 2,3,4 | | |
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| **Content Standard K. Communication: Students will reflect upon and clarify their understanding of mathematical ideas and relationships. Students will be able to:** | | | | | | | | | |
| Grade 3 | | | | | | | | | |
| M4K1.3 Complete tables, bar graphs and pictographs. | yes | yes | no, line plots, full construct in 2007 | B2(2), B2(3), B2(4) | no | 3 | 2,3,4 | | |
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| Grade 4 | | | | | | | | | |
| M4K1.4 Use simple tables and graphs to communicate ideas and information in a concise and clear manner. | yes | yes | no | B2(3); B2(4) | no | 3 | 2,3,4 | | |
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| Grade 5 | | | | | | | | | |

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| M4K2.5 Read and use statistics, tables, and graphs to communicate ideas and information. Data displays include frequency distributions, tables, line plots, histograms or bar graphs and pie charts/circle graphs (read only). | yes | yes | no | B2(4), B3(5),B3(6) | no | 2,3 | 2,3,4 | | |
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| Grade 6 | | | | | | | | | |
| M4K2.6 Read and use statistics, tables, and graphs to communicate ideas and information. Data displays include frequency distributions, tables, line plots, histograms or bar graphs and pie charts/circle graphs (read only). | yes | yes | no | B2(4), B3(5),B3(6) | no | 2,3 | 2,3,4 | | |
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| Grade 7 | | | | | | | | | |
| M4K2.7 Read and use statistics, tables, and graphs to communicate ideas and information. Data displays include lists, tables, frequency distributions, line plots, bar graphs, stem and leaf plots or 1st quadrant scatterplots and line graphs and pie charts/circle graphs (read only). | yes | yes | no, more displays in B1(7), scatterplots considered part of line graphs | B1(7) | yes | 2,3,4 | 2,3,4 | | |
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| Grade 8 | | | | | | | | | |
| M4K2.8 Use statistics, tables, and graphs to communicate ideas and information in convincing presentations and analyze presentations of others for bias or deceptive presentation. | partial | no, analyzing for bias and deception mising in 2007 | no | B1(7), B3(8) | yes | 3,4,5,6 | 2,3,4 | | |
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| **Standards, PIs, Descriptors NOT found in GLE document** | | | | | | | | | |
| A1(4)d round numbers | | | | | | | | | |
| A1(5)abc to 10 million and rounding | | | | | | | | | |
| A2(8)real numbers as rational and irrational | | | | | | | | | |
| A5(4) Round decimals | | | | | | | | | |
| B1(7) pictograms, box and whisker plots, electronic technologies | | | | | | | | | |
| B1(8)quartiles | | | | | | | | | |
| B2(7)c probabilities between 0 and 1 inclusive | | | | | | | | | |
| B4(8)complementary and mutually exclusive events, simulations, compound probabilities | | | | | | | | | |
| C1(6) use of nets | | | | | | | | | |
| C3(5) surface area and nets | | | | | | | | | |
| **C3(6) surface areas and nets** | | | | | | | | | |

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| **C3(7) using scale drawings and enlarging and reducing figures** | | | | | | | | | |
| C3(8) Pythagorean Theorem | | | | | | | | | |
| **C4(8) Surface area** | | | | | | | | | |
| C5(6) using scale drawings in measurement | | | | | | | | | |
| D1(8)1 manipulate expressions | | | | | | | | | |
| D2(7)b convert to 0=ax+b form | | | | | | | | | |
| D3(5) use of diagrams | | | | | | | | | |
| D3(7)c interpret slope and intercept | | | | | | | | | |
| D(4)8 use of y=kx+b to this depth | | | | | | | | | |
| **% increase or decrease # of Standards** | | | | | | | | | |
| **10 to 4 -60%** | | | | | | | | | |
| **% increase or decrease # of Performance Indicators** | | | | | | | | | |
| 105 to 84 -20% | | | | | | | | | |